

**CLAIMS**

1. A method of allocating traffic between a plurality of paths in a communications network comprising at least two nodes, said paths each being between the same pair of nodes, and wherein said traffic comprises packets, each packet being a member of a flow and comprising a flow label, said method comprising allocating the packets between the paths on the basis of the flow labels.
2. A method as claimed in claim 1 wherein all the packets within a particular flow have the same flow label.
3. A method as claimed in claim 2 wherein said method is arranged such that in use, substantially all packets with the same flow label are allocated to the same path.
4. A method as claimed in claim 1 wherein said flow labels are selected from a pre-specified range of values in a pseudo random manner.
5. A method as claimed in claim 4 wherein said flow labels are selected such that the selected flow labels substantially fit a specified form of distribution.
6. A method as claimed in claim 5 wherein said form of distribution is a uniform distribution.
7. A method as claimed in claim 1 wherein the packets are allocated between the paths such that all the packets from the same flow are allocated to the same path.
8. A method as claimed in claim 1 which further comprises applying a hash function to the flow labels and allocating the packets between the paths on the basis of the results of the hash function.
9. A method as claimed in claim 8 which further comprises specifying a range of hash result values for each of the paths.

10. A method as claimed in claim 9 wherein said ranges are specified on the basis of information about the total volume of traffic.
- 5 11. A method as claimed in claim 9 wherein said ranges are specified on the basis of forecast information about the volume of particular flows.
12. A method as claimed in claim 1 wherein said paths are physical paths.
- 10 13. A method as claimed in claim 1 wherein said paths are logical paths.
14. A method as claimed in claim 1 wherein said packets are internet protocol packets.
- 15 15. A method as claimed in claim 1 wherein the paths are associated with an interface between an electrical region and an optical region of the communications network.
- 20 16. An apparatus for allocating traffic between a plurality of paths in a communications network comprising at least two nodes, said paths each being between the same pair of nodes, and wherein said traffic comprises packets, each packet being a member of a flow and comprising a flow label, said apparatus comprising a processor arranged to allocate the packets between the paths on the basis of the flow labels.
- 25 17. An apparatus as claimed in claim 16 which is a communications network node suitable for use within the core of a communications network.
18. A communications network comprising an apparatus as claimed in claim 16.
19. A communications network as claimed in claim 18 which comprises an electrical region and an optical region.
- 30 20. A computer program arranged to control an apparatus for allocating traffic between a plurality of paths in a communications network comprising at least two nodes, said

paths each being between the same pair of nodes, and wherein said traffic comprises packets, each packet being a member of a flow and comprising a flow label, said computer program being arranged to control the apparatus such that it allocates the packets between the paths on the basis of the flow labels.

5

[illegible]